

FWP FORESTRY PROGRAM

REPORT TO THE 66TH MONTANA LEGISLATURE

JANUARY 2019



West Kootenai Wildlife Management Area. Photo Credit: J. Parke



TABLE OF CONTENTS

TABLE OF CONTENTS.....	2
OVERVIEW.....	4
SUMMARY OF ACCOMPLISHMENTS, 2009-2018	5
FOREST MANAGEMENT ACCOUNT	7
FISHING ACESSS SITES	7
STATE PARKS	7
WILDLIFE MANAGEMENT AREAS	7
PROJECTS	8
FISHING ACCESS SITES.....	8
STATE PARKS	8
WILDLIFE MANAGEMENT AREAS	8
Sun River WMA Habitat Project.....	8
Blackfoot-Clearwater WMA Forest Restoration Project.....	9
Mount Silcox WMA Forest Habitat Project.....	10
West Kootenai WMA Fire Salvage	10
Blackleaf WMA Conifer Removal 2018	11
BCWMA Conifer Expansion and Native Grassland Restoration Project	12
Mt. Haggin WMA Habitat Project #4	12
Robb-Ledford/Blacktail WMA Non-Commercial Conifer Removal Project.....	13
Nevada Lake WMA Forest Habitat Enhancement Project	14
Threemile WMA Forest Restoration Project Phase 2	14
FUTURE PROJECTS.....	16
GRANTS	20

PARTNERSHIPS AND COLLABORATION	21
FOREST MANAGEMENT PLANS/INVENTORY DATABASE	22
TECHNICAL ASSISTANCE, COMMUNICATION, AND OUTREACH	23

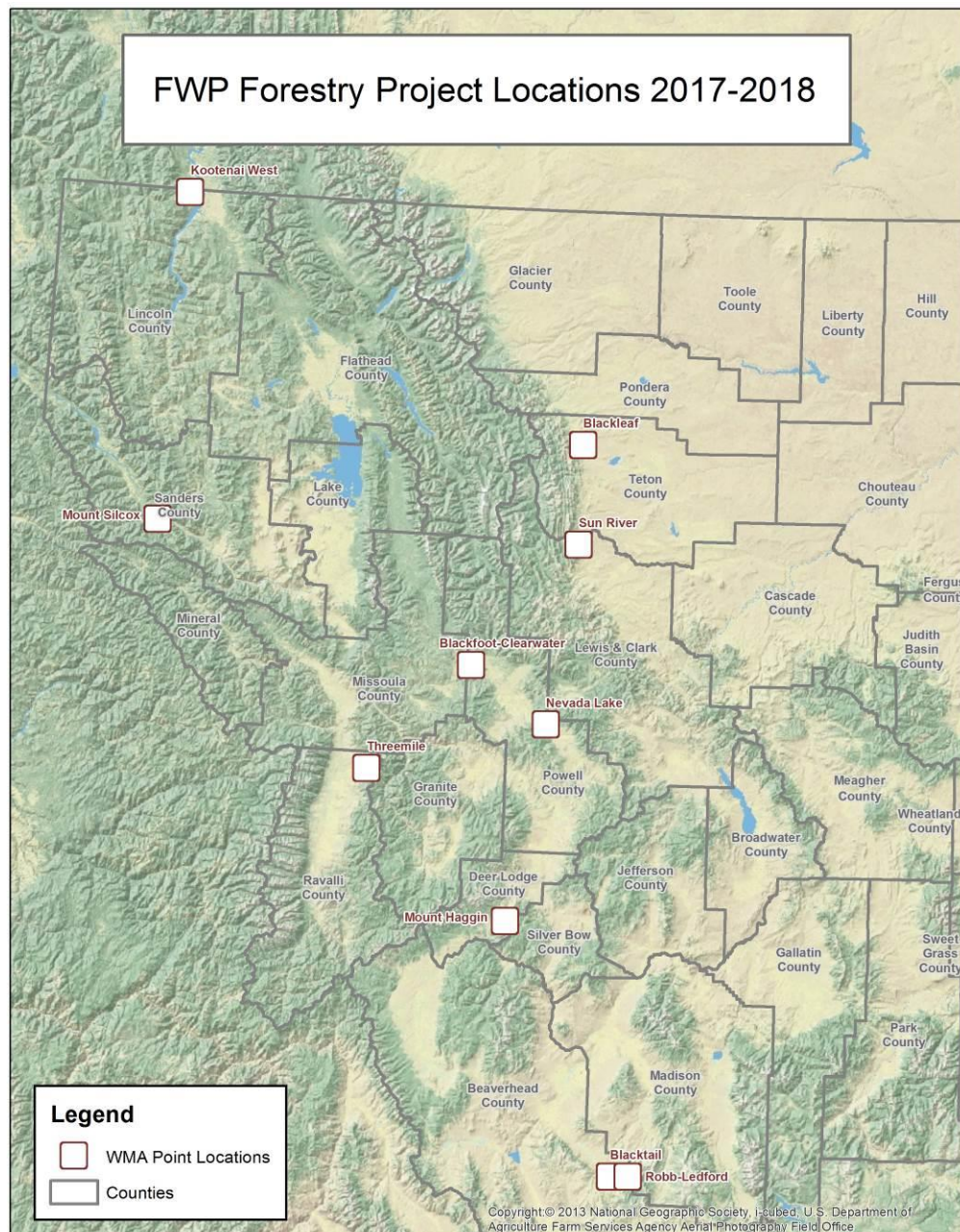


Figure 1 - FWP Forestry Work Locations 2017 - 2018

OVERVIEW

This report summarizes Montana Fish, Wildlife & Parks' (FWP) forestry work and projects completed between January 1, 2017 and December 31, 2018 as well as the status of Forest Management Account balances for fiscal years (FY) 2017 and 2018. The forestry program came into existence in 2009 with House Bill 42, requiring FWP to implement programs to address fire mitigation, pine beetle infestation, and wildlife habitat enhancement with a priority on forested lands larger than 50 acres [§ 87-1-201(9)(a)(iv), Montana Code Annotated (MCA)] and the establishment of the Forest Management Account to implement forest management projects using revenue generated from forest management projects (§ 87-1-621, MCA).

In 2011, the Legislature added a provision with House Bill 619 requiring FWP to calculate an annual sustainable yield on its forested lands and adopt forest management plans based on that yield. The annual timber sale requirement for the timber sale program administered by FWP may not exceed the annual sustained yield [§ 87-1-622(3), MCA]. FWP contracted with Mason, Bruce & Girard, Inc., a forestry consulting company, to conduct an independent sustained yield calculation which was completed on December 31, 2013. Their report found that 151,477 acres have potential commercial forest value with 57,403 acres (37.7%) available for harvest. Of the acres available for harvest, 344 are on Fishing Access Sites (FAS), 6,237 are on State Parks (SP), and 50,822 are on Wildlife Management Areas. The report calculated that over the next 50 years, an annual sustained yield of 4.1 million board feet (MMBF) could be harvested on FWP lands. FWP is currently preparing a report for the Fish and Wildlife Commission and Parks and Recreation Board for their review of the annual sustainable yield, which is required every 5 years [§ 87-1-622(4), MCA].

In 2017, the 65th Legislature authorized a permanent base forester position to continue development of the forestry program, to develop and implement forest management plans, and to keep forest projects on schedule.

The State Parks and Recreation Board and Fish and Wildlife Commission are required by law to adopt forest management plans for lands under their jurisdiction [§ 87-1-622(1), MCA]. FWP completed a statewide programmatic forest management plan in 2018. The plan was adopted by the State Parks and Recreation Board in February 2018 and the Fish and Wildlife Commission in April 2018. This is a strategic plan that provides FWP with a framework for developing property-specific forest management plans and guidelines for implementing forest management projects. The plan defines a forest management approach for evaluating current conditions, developing desired future conditions, determining actions that can be implemented to achieve desired future conditions, and monitoring that will be done to track progress towards achieving desired future conditions.

SUMMARY OF ACCOMPLISHMENTS, 2009-2018

Since the establishment of the FWP forestry program in 2009, several forest management projects have been completed (see table 1 below). These projects have treated 4,450 acres and generated 91,874 tons of forest products (approximately 3,400 log truck loads).

Table 1 - Forestry Projects Summary, 2009-2018

Project	Region	Acres	Harvest Volume (Tons)	Completion Year	Description
Thompson Chain of Lakes SP	1	748	8,056	2010	Fuels reduction, hazard tree mitigation and habitat improvement.
Flathead Lake SP – Wayfarers	1	15	0	2010	Dwarf mistletoe mitigation.
Flathead Lake SP – Wild Horse Island	1	215	0	2011	Pine beetle suppression and ponderosa pine, grassland habitat restoration.
Blackfoot-Clearwater WMA (Ovando Mountain)	2	365	10,028	2012	Treatments included improve forage, restore desirable forest structure, aspen enhancement, lodgepole pine salvage, and fuels reduction.
River Junction FAS	2	5	175	2012	Mountain pine beetle salvage of ponderosa pine.
Marshall Creek WMA Blowdown Salvage	2	8	406	2013	Blowdown salvage, cleared public roadway.
Stuart Mill Bay FAS	2	80	6,432	2014	Lodgepole pine salvage and thinning, slash disposal, tree planting, and fence removal.
Mount Haggin WMA 1	3	400	12,163	2014	Lodgepole pine salvage, aspen enhancement.
Mount Haggin/Fleecer WMA Habitat Projects	3	289	0	2015	Elk and mule deer winter range enhancement, conifer removal to promote grass, sagebrush, bitterbrush, and aspen.
Mount Haggin WMA 2	3	732	19,529	2016	Elk and mule deer winter range enhancement, salvage, fuels reduction.
West Kootenai WMA	1	251	6,988	2016	White-tailed deer winter range enhancement, fuels reduction.
Threemile WMA	2	342	4,864	2016	Elk and deer winter range enhancement, aspen restoration, fuels reduction, pine beetle risk reduction.
Lone Pine SP	1	20	0	2016	Reduce bark beetle risk, improve tree vigor, remove mistletoe infected trees.

Project	Region	Acres	Harvest Volume (Tons)	Completion Year	Description
Milltown SP	2	17	0	2016	Reduce bark beetle risk, improve public safety, aesthetics, and wildlife habitat.
Flathead Lake SP/Finley Point	1	14	234	2017	Campsite and road development.
Libby Field Station	1	1	39	2018	Parking area expansion.
Mount Silcox WMA Forest Habitat Project	1	88	2,471	2018	Elk, bighorn sheep, and mule deer winter range; fuels reduction; bark beetle risk reduction; habitat diversity.
West Kootenai WMA Fire Salvage	1	506	16,378	2018	Elk, mule deer, and white-tailed deer winter range; natural regeneration; salvage.
Blackfoot-Clearwater WMA Forest Restoration Project	2	354	4,837	2018	Elk and white-tailed deer winter and spring range, aspen enhancement, restore historic forest structure, fuels reduction, and pine beetle risk reduction.
Blackleaf WMA Conifer Removal 2018	4	30	0	2018	Elk and mule deer winter and transitional range, aspen enhancement.
Robb-Ledford/Blacktail WMA Conifer Removal	3	426	0	On-going	Year-round big-game habitat, ruffed and sage-grouse habitat.
Sun River WMA Habitat Project	4	71	0	On-going	Elk winter range.

FOREST MANAGEMENT ACCOUNT

The following tables summarize Forest Management Account activities within each FWP division for fiscal years (FY) 2017-2018.

FISHING ACCESS SITES

Table 2 - Fishing Access Site Forest Management Account Balance, FY 17-18

STARTING BALANCE (JULY 1, 2016)	\$ 63,775.49	
FWP SITE/TRANSACTION	EXPENSE	INCOME
Interest		\$ 972.65
ENDING BALANCE (JUNE 30, 2018)	\$ 64,748.14	

STATE PARKS

Table 3 - State Parks Forest Management Account Balance, FY 17-18

STARTING BALANCE (JULY 1, 2016)	\$ 7,537.05	
FWP SITE/TRANSACTION	EXPENSE	INCOME
Interest		\$ 127.35
ENDING BALANCE (JUNE 30, 2018)	\$ 7,664.40	

WILDLIFE MANAGEMENT AREAS

Table 4 - Wildlife Management Areas Forest Management Account Balance, FY 17-18

STARTING BALANCE (JULY 1, 2016)	\$ 767,213.13	
FWP SITE/TRANSACTION	EXPENSE	INCOME
Threemile WMA	\$ 4,213.59	\$ 20,767.43
Sun River WMA	\$ 605.85	
Ray Kuhns WMA	\$ 4,209.72	
Blackfoot-Clearwater WMA	\$ 20,069.77	\$ 1,744.57
Mount Silcox WMA	\$ 33,250.00	\$ 1,415.33
West Kootenai WMA	\$ 15,346.75	\$ 607,156.13
Mt. Haggin WMA	\$ 2,437.50	
Nevada Lake WMA	\$ 4,875.00	
Overhead (indirect costs)	\$ 37,835.81	
Base (salary, operating costs)	\$ 212,017.68	
Interest		\$ 15,947.36
ENDING BALANCE (JUNE 30, 2018)	\$ 1,079,382.28	

PROJECTS

FISHING ACCESS SITES

For calendar year 2017 through 2018, no new forest management projects have been undertaken that are directly related to the program as defined in § 87-1-201(9)(a)(iv), MCA. The Libby Field Station, a Fisheries Division administrative site, expanded their parking and storage area which required tree removal totaling 39 tons of forest products. The project did not generate revenue for the Forest Management Account. FWP applied for a grant to treat 40 acres on the River Junction Fishing Access Site (FAS). If successful, FWP would begin planning the project in 2019. The FWP forester toured several FASs in Region 1 in the summer of 2018 for potential project opportunities in 2019-2020.

STATE PARKS

For calendar year 2017 through 2018, no new forest management projects have been undertaken that are directly related to the program as defined in § 87-1-201(9)(a)(iv), MCA. A campsite development project at Finley Point State Park (SP) required tree removal, resulting in 234 tons of forest byproducts (sawlogs and firewood). The project did not generate revenue for the Forest Management Account.

WILDLIFE MANAGEMENT AREAS

For the calendar years 2017 through 2018, several forest management projects have been completed, are under contract, or are in a planning stage. Projects include both commercial timber harvest and non-commercial treatments such as hand-thinning and prescribed fire.

Sun River WMA Habitat Project

In October 2016, FWP and the Helena-Lewis and Clark National Forest entered into an interagency cooperative agreement under the Wyden Amendment authority which allows the U.S. Forest Service to conduct work on state lands. U.S. Forest Service personnel from the Rocky Mountain Ranger District will thin and burn 465 acres on the Sun River WMA approximately 12 miles west of Augusta, MT. Thinning and prescribed burning would focus on the removal of Douglas-fir with the objective of promoting native grass and forb production; improving aspen stands; and improving forest health and resilience to insects, disease, and wildfire. The USFS is contributing labor, equipment, and supplies and materials. The project is expected to be complete by December 2021.

FWP has committed to pay the U.S. Forest Service using the Forest Management Account and grant funds.

To-date, the U.S. Forest Service has completed 71 acres of thinning and piling on the project. FWP received a grant from the Rocky Mountain Elk Foundation (RMEF) that was used for work completed through November 2018. The treatments are non-commercial and won't result in the sale of forest products. The Sun River WMA is critical elk winter range and up to 95 percent of the Sun River elk herd (as many as 2,700) can be found on the WMA during the peak of winter.



Figure 2 - Felled and piled Douglas-fir trees that have expanded into grasslands important for elk winter range. Piles will be burned in 2019. Photo Credit: B. Lonner

Blackfoot-Clearwater WMA Forest Restoration Project



Figure 3 - Active timber harvest operations in January 2018. An average of 1 log-truck load per 3 acres was removed. This photo shows the residual stand condition. Photo Credit: J. Parke

harvesting was completed in October 2018 and understory thinning was completed in September 2018. Rehab work such as grass seeding and weed spraying as well as slash disposal in the form of piling and burning and jackpot burning will occur in the summer/fall of 2019.

The Blackfoot-Clearwater WMA Forest Restoration Project was approved by the Fish and Wildlife Commission in August 2016. The objectives of the project were to enhance aspen stands; improve native grass, shrub, and forb production; and reduce susceptibility of treated stands to uncharacteristic stand replacement fire and bark beetle epidemics. FWP worked with the Montana Department of Natural Resources (DNRC) and a forestry consulting firm, Northwest Management, Inc. to assist with planning and field work. The project involved timber harvesting, understory thinning, and prescribed fire. Timber

The project treated 354 acres and resulted in the sale 1,823 tons of sawlogs¹ equating to approximately 281 thousand board feet (MBF) (54 log truck loads) and 2,288 tons of pulp logs (72 log truck loads). Sale of forest products generated \$2,838.36 for the Forest Management Account. Logs from the project were sold to Pyramid Mountain Lumber, IFG-St. Regis, and Willis Enterprises. FWP contracted with the logging contractor Bull Mountain Forestry, Inc. and a thinning contractor, Brushbull Forestry, Inc., to complete the work. Understory thinning and slash treatment were funded with a grant from RMEF and a U.S. Forest Service Landscape Scale Restoration grant administered by DNRC.

Mount Silcox WMA Forest Habitat Project

FWP completed a forest management plan for the Mount Silcox WMA in February 2017 and, based on the priorities identified in the plan, initiated this project which was approved by the Fish and Wildlife Commission in August 2017. The objectives of the project were to enhance aspen stands; promote bunchgrass and woody browse production for elk, bighorn sheep, and mule deer; and promote habitat diversity for a variety of endemic wildlife species. FWP worked with a forestry consulting firm, Northwest Management Inc., to assist with the field work and contract administration of the project. The project involved timber harvesting and understory thinning. All work was completed by June 2018.



Figure 4 - Northwest Management Inc. subcontracted with logger Dale Flanagan to complete the timber harvest. Photo Credit: J. Parke

The project treated 88 acres and resulted in the sale of 1,863 tons of sawlogs equating to approximately 287 MBF (68 log truck loads) and 608 tons of pulp logs (22 log truck loads). Timber sold generated \$1,415.33 for the Forest Management Account. Northwest Management Inc. subcontracted with Flanagan Logging and logs from the project were sold to Thompson River Lumber, Weyerhaeuser, and Willis Enterprises.

West Kootenai WMA Fire Salvage

The West Kootenai WMA Fire Salvage Timber Sale was conducted after the 2017 Caribou Fire burned 745 acres of the 917-acre West Kootenai WMA. A severe weather event on September 2,

¹ All timber sales were measured in tons. For this report, a conversion factor of 6.5 tons per MBF was used.



Figure 5 - Post-fire condition following the 2017 Caribou fire.

Photo Credit: J. Parke

landscapes, promote natural regeneration where possible, and complete the work while the value of the timber would cover the cost of the treatment. FWP contracted with Northwest Management Inc. to assist with contract administration.

2017 resulted in high severity fire throughout the WMA, including 160 acres that had been recently thinned in 2014. The project was approved by the Fish and Wildlife Commission in December 2017 and FWP contracted with F.H. Stoltze Land and Lumber Company to implement a timber harvest. The objectives of the project were to avoid accumulation of dead and downed timber that could preclude ungulate movement across the

The project treated 506 acres and resulted in the sale of 16,079 tons of sawlogs equating to 2.474 million board feet (MMBF) (484 log truck loads) and 299 tons of pulp logs (11 log truck loads). Sale of forest products generated \$607,156.13 in revenue for the Forest Management Account. F.H. Stoltze Land and Lumber Company subcontracted Ten Lakes Forestry to complete the timber harvesting. Logs from the project were sold to F.H. Stoltze Land and Lumber Company and Weyerhaeuser. FWP also paid the Kootenai National Forest \$19,162.07 in bridge maintenance fees to use the Koocanusa Bridge.

Blackleaf WMA Conifer Removal 2018



Figure 6 - FWP completed hand-felling, lop and scatter, and piling with its own staff in the summer of 2018. Photo Credit: R. Rauscher

is mostly complete with the exception of pile burning which is planned for the winter of 2018/19. FWP plans to expand the project to other areas of the WMA in coming years.

FWP initiated the Blackleaf WMA Conifer Removal 2018 project in August of 2018. This is a pilot project to remove conifers, primarily Douglas-fir, from grassland, shrublands, and aspen habitats. FWP is completing the work in-house with wildlife biologists, game wardens, and WMA maintenance staff. The treatment is noncommercial and includes hand-felling, girdling, lop and scatter, and pile and burn. The pilot project area is 30 acres and the project

BCWMA Conifer Expansion and Native Grassland Restoration Project

The Blackfoot-Clearwater WMA (BCWMA) Conifer Expansion and Native Grassland Restoration Project was approved by the Fish and Wildlife Commission in April 2017. The objectives of the project are to maintain and restore rough fescue/Idaho fescue grassland, ponderosa pine savannah, aspen habitats, and mixed-conifer forest on elk winter range. The project will utilize a combination of commercial timber harvest and non-commercial treatments such as lop and scatter, pile and burn, and prescribed burning. FWP contracted with The Nature Conservancy to assist in the planning and field work for this project.



Figure 7 - A feller-buncher is being used on this project to restore elk winter range. Photo Credit: J. Parke

The project will treat approximately 2,917 acres. The first phase of the project, totaling 404 acres, was awarded to Bull Creek Forestry, Inc. in July 2018 and work commenced in September 2018. This phase will generate an estimated 4,102 tons of sawlogs equating to approximately 634 MBF and 994 tons of pulp logs. The value of the logs partially offset the cost of the treatment. Additional funding to complete this phase of the project was

awarded to FWP by RMEF and the U.S. Forest Service Landscape Scale Restoration Grant administered by DNRC. FWP has applied for grant funding through the U.S. Forest Service Western Wildland Urban Interface grant program administered by DNRC for the next phase of this project.

Mt. Haggin WMA Habitat Project #4

The Mt. Haggin WMA Habitat Project #4 was approved by the Fish and Wildlife Commission in April 2018. The objectives of the project are to prevent loss of sagebrush, grassland, aspen, and riparian habitat by removing competing conifers and increase year-round forage and browse available to elk, mule deer, moose, pronghorn, and ruffed grouse by removing conifers that compete with forb, grass, and deciduous shrub



Figure 8 - Approximately 150 elk on the Mt. Haggin WMA. Conifers in the background will be removed to enhance/maintain winter and spring forage. Photo Credit: J. Parke

and tree species.

The project will treat approximately 1,500 acres. FWP has contracted with Northwest Management Inc. for the first phase of the project totaling 1,182 acres. The first phase of the project will start in the summer of 2019 and involves removal of noncommercial trees by hand cutting, piling, and burning. The second phase may involve the removal of a minor amount of sawlogs and pulp logs and is scheduled to commence in 2020. FWP is funding the project through its Forest Management Account and grants from the Mule Deer Foundation (MDF), RMEF, and the Montana Natural Resource Damage Program (NRDP) administered by the Montana Department of Justice.

Robb-Ledford/Blacktail WMA Non-Commercial Conifer Removal Project



Figure 9 - Non-commercial conifers would be removed in the sagebrush (foreground) and some commercial removal would occur in the aspen (background). Photo Credit: J. Parke

FWP issued a Decision Notice approving this project in July 2017. The objectives of the project are to prevent loss of sagebrush/grassland habitat by removing competing conifers, increase sage-grouse nesting habitat, and increase year-round forage and browse available to elk, mule deer, moose, pronghorn, sage-grouse, and ruffed grouse by removing conifers that compete with forb, grass, and deciduous shrub species.

The project will treat approximately 1,550 acres. The Blacktail WMA portion of the project, totaling 343 acres, was completed by FWP staff in July 2018. This phase involved removal of non-commercial trees by hand cutting, lop and scatter, and pile and burn. FWP also completed 83 acres of the Robb-Ledford WMA portion in 2018 with the assistance of volunteers and a work day organized by MDF. Work on the Robb-Ledford WMA portion will resume in the summer of 2019. This phase is primarily non-commercial except for approximately 44 acres that would involve commercial timber harvest. This project has been funded by grants from MDF and additional funding is being sought from the National Fish and Wildlife Foundation, Ruby Watershed Conservation District, RMEF, and FWP's Forest Management Account.

Nevada Lake WMA Forest Habitat Enhancement Project

This project was approved by the Fish and Wildlife Commission in August 2018. The objectives of the project are to improve elk and deer winter forage, increase resilience to fire by restoring open stand conditions dominated by large diameter ponderosa pine, recruit ponderosa pine regeneration, and enhance aspen habitats. FWP contracted with Northwest Management Inc. and The Nature Conservancy to assist with the planning and field work for this project as well as receiving assistance with field work from DNRC and volunteers.

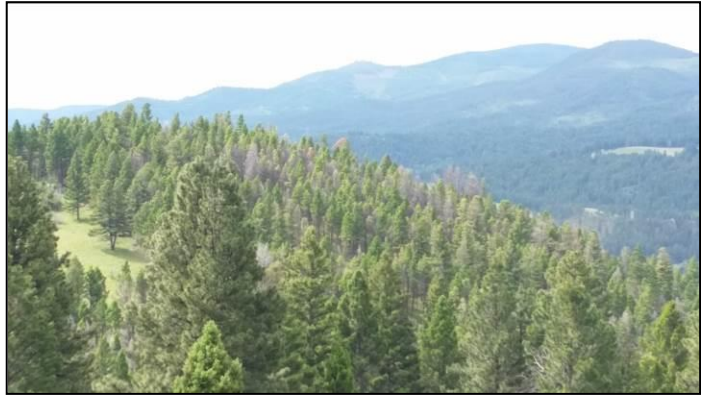


Figure 10 - Stands on the Nevada Lake WMA have been affected by insect mortality, degrading habitat for some wildlife and increasing susceptibility to stand replacement fire. Photo Credit: J. Parke

The project would treat approximately 465 acres through a combination of commercial timber harvest, understory thinning, and prescribed burning. It is estimated that the project would generate approximately 2,561 tons of sawlogs equating to approximately 394 MBF and 1,756 tons of pulp logs. FWP plans to bid out the project in January 2019.

Threemile WMA Forest Restoration Project Phase 2

The Fish and Wildlife Commission endorsed the Threemile 2 project in June 2018 and FWP is currently in the process of preparing a draft environmental assessment for public review. The objectives of the project are to improve native grass and woody browse forage production for elk and mule deer, restore a more desirable species composition and successional stage, reduce susceptibility of treated stands to bark beetle epidemics and uncharacteristic stand-replacement fire, and improve aspen habitats. FWP contracted with Northwest Management Inc. to assist with field work. FWP initiated discussions with the U.S. Forest Service and DNRC to enter into a Good Neighbor Authority agreement to treat approximately 250 acres of adjacent National Forest System Lands (NFSL) administered by the Bitterroot National Forest. If an agreement is executed, DNRC would assist the U.S. Forest Service in developing and administering a project in coordination with FWP on the NFSLs that are landlocked within or immediately adjacent to the Threemile WMA.



Figure 11 - Overstocked stands such as this would be thinned to improve winter range habitat as well as reduce susceptibility to stand replacement fire. Photo Credit: J. Parke

The project would treat an estimated 1,492 acres through a combination of commercial timber harvest, understory thinning, and prescribed burning. The project may generate approximately 2.5 MMBF of sawlogs and 9,600 tons of pulp logs. FWP plans to bid out the project in the summer of 2019.

FUTURE PROJECTS

The following table shows project areas that have been identified by FWP as priority areas for forestry treatments. The project areas were identified through the 2013 Sustained Yield Calculation process as well as statewide planning processes. FWP completed a statewide forest management plan in 2018 which provides a framework for identifying, prioritizing, and implementing forest management projects. Additional priority areas may be identified in the event of unforeseen forest disturbances (e.g. wildfire, insect infestation), opportunity, or through the annual call for project proposals. The acreages and volumes listed are estimates and subject to change depending on issues identified during project development and input received during public participation. The Fish and Wildlife Commission and Parks and Recreation Board retain final decision-making authority on projects involving the sale of merchantable timber.

Table 5 - WMA Forestry Project List, 2019-2024

Project Area	Region	Est. Acres	Est. Sawlog Volume (MBF)	Species	Implementation Date	Description
Robb-Ledford/Blacktail WMA	3	1,550	45	DF, limber pine, juniper	2017 - 2020	Year-round big-game habitat, ruffed and sage-grouse habitat, aspen enhancement (mostly non-commercial)
Sun River WMA	4	465	0	DF	2017 - 2021	Elk winter range, aspen enhancement (non-commercial, active U.S. Forest Service Cooperative Agreement)
Blackfoot-Clearwater WMA	2	404	634	90% PP, 10% DF	2018 - 2020	Elk winter range, aspen enhancement (under contract)
Mt. Haggin WMA	3	1,182	0	DF	2019 - 2020	Big game winter/spring range (non-commercial, under contract)
Nevada Lake WMA	2	465	400	90% DF, 10% PP	2019 - 2021	Elk and mule deer winter range, aspen enhancement, restore desirable forest structure
Threemile WMA	2	1,492	2,500	75% PP, 25% DF	2019 - 2021	Elk and mule deer winter range, aspen enhancement, restore desirable forest structure

Project Area	Region	Est. Acres	Est. Sawlog Volume (MBF)	Species	Implementation Date	Description
Blackleaf WMA	4	500	0	DF, limber pine	2019 – 2024	Elk and mule deer winter/transitional range, aspen enhancement (non-commercial)
Blackfoot-Clearwater WMA	2	1,000	1,500	90% PP, 10% DF	2020 - 2022	Elk winter range enhancement, aspen enhancement, restore desirable forest structure, fuels reduction
Marshall WMA	2	500-1,000	500-1,500	Mixed-conifer	2020 - 2022	Restore desirable forest structure, fuels reduction, lynx habitat, elk summer and fall range
River Junction FAS	2	40	100	DF, PP	2020 - 2022	Fuels reduction, hazard tree removal, aesthetics
Bull River WMA	1	50-100	200	Mixed-conifer	2020 - 2022	Fuels reduction, restore desirable forest structure, big game winter range
Calf Creek WMA	2	300	450	PP, DF	2020 - 2022	Elk and mule deer winter range enhancement
Mt. Haggin WMA	3	500	250	DF, LP	2020 - 2022	Elk and mule deer summer range, aspen, bark beetle and fire risk mitigation
North Swan WMA	1	500-1,000	500-1,500	Mixed-conifer	2021 - 2023	Restore desirable forest structure
Region 1 FAS/Parks	1	10-250	0-1,000	Mixed-conifer	2021 - 2024	Fuels reduction, hazard tree removal, aesthetics, wildlife habitat
Fish Creek WMA	2	50-500	0-750	Mixed-conifer	2021 - 2024	Quartz-Rivulet area, potential precommercial/early commercial thin
Ray Kuhns WMA	1	30-150	100-1,000	Mixed-conifer	2022 - 2024	Whitetail deer winter range
Garrity Mountain WMA	2	100-1,000	100-1,500	DF, LP	2022 - 2024	Elk, mule deer, bighorn sheep winter/spring range
Woods Ranch WMA	1	115	300-500	Mixed-conifer	2023 - 2024	Elk and deer winter range, restore desirable forest structure

The next table (Table 6) shows project areas and approximate acres that may be proposed for commercial forest treatments. Additional non-commercial treatments are expected. This table was developed based on information compiled for the 2013 Sustained Yield Calculation and statewide planning. It is subject to change in the event of unforeseen forest disturbances (e.g. wildfire, insect infestation), opportunity, or additional forest planning efforts. The acreage of State Park and Fishing Access Site forestry projects will vary based on funding availability.

Table 6 - Long Range Planning of FWP Commercial Forest Treatments

Project Area	Region	6-15 Years (acres)	16 -30 Years (acres)	Management Objectives/Regime
Ray Kuhns WMA	1	-	70	Mature forest cover for whitetail deer winter range. Uneven-aged; single-tree and group select with periodic salvage and sanitation
Woods Ranch WMA	1	-	115	Elk and deer winter range. Uneven-aged; single-tree selection, promote multi-story development
Mount Silcox WMA	1	-	120	Elk and bighorn sheep winter/spring range. Uneven-aged; thin from below and group selection
Bull River WMA	1	250	70	Whitetail deer/multiple wildlife objectives. Uneven-aged; thin from below to maintain mature forest cover
North Swan Valley WMA	1	-	500	Whitetail deer/multiple wildlife objectives. Uneven-aged; promote mixed conifer, multi-storied stand structure
West Kootenai WMA	1	-	500	Elk and deer winter range. Uneven-aged and even-aged – precommercial and early commercial thin in 2017 Caribou Fire area in approximately 30 years.
Blackfoot-Clearwater WMA	2	1,500	1,800	Elk and mule deer winter range. Uneven-aged; conifer expansion, thin from below, group selection
Calf Creek WMA	2	-	130	Elk winter range. Uneven-aged; conifer expansion and group selection
Threemile WMA	2	-	350	Elk and mule deer winter range. Uneven-aged, single tree and group selection
Nevada Lake WMA	2	-	100	Elk winter range. Uneven-aged management; conifer expansion and thin from below
Garrity Mountain WMA	2	-	200	Elk, mule deer, and bighorn sheep winter/spring range. Even and uneven-aged; lodgepole salvage, aspen enhancement, conifer expansion
Fish Creek WMA	2	-	-	Elk and deer winter/summer range with multiple other wildlife objectives. Minimal commercial harvest expected within 30 years

Project Area	Region	6-15 Years (acres)	16 -30 Years (acres)	Management Objectives/Regime
Spotted Dog WMA	2	50	-	Elk winter range. Even-aged (lodgepole) and uneven-aged
Marshall WMA	2	270	900	Lynx habitat and summer/fall elk range. Even-aged and uneven aged; shelterwood and group selection
Mt. Haggin WMA	3	900	630	Year-round elk and mule deer habitat. Even and uneven-aged; salvage, commercial thin, group selection, and conifer expansion
Canyon Creek WMA	3	-	150	Elk summer range and fall security. Uneven-aged; single tree selection
Haymaker WMA	5	70	-	Elk winter range. Uneven-aged; group selection
Fishing Access Sites	All	20	20	Safety, aesthetics, insects and disease risk mitigation, hazardous fuels reduction, and riparian habitat enhancement
State Parks	All	300	300	Safety, aesthetics, insects and disease risk mitigation, hazardous fuels reduction

GRANTS

Several projects did not produce merchantable byproducts and/or the cost of the treatment exceeded the value of the merchantable timber removed. The projects listed below received grant funding to help pay for the cost of the treatment. Funding from the FWP Forest Management Account provided matching funds for most of these projects.

Table 7 - Grants awarded to FWP in Calendar Year (CY) 2017 and 2018

PROJECT	GRANTOR	AMOUNT
Sun River WMA	Rocky Mountain Elk Foundation	\$ 6,245
Blackfoot-Clearwater WMA Forest Restoration Project	Rocky Mountain Elk Foundation	\$ 11,000
Mt. Haggin WMA Habitat Project #4	Mule Deer Foundation	\$ 15,000
	Rocky Mountain Elk Foundation	\$ 35,000
	Montana Natural Resource Damage Program	\$ 196,905
BCWMA Conifer Expansion and Native Grassland Restoration Project	Rocky Mountain Elk Foundation	\$ 20,000
	U.S. Forest Service Landscape Scale Restoration Grant	\$ 64,480
Mt. Haggin WMA Forest Inventory	Montana Natural Resource Damage Program	\$ 35,800
Garrity Mountain WMA Forest Inventory	Montana Natural Resource Damage Program	\$ 14,300
TOTAL AWARDED CY 2017-2018		\$ 398,730

Table 8 - Grants applied for in CY 2017 and 2018

PROJECT	GRANTOR	AMOUNT
River Junction FAS, Marshall WMA, and Blackfoot-Clearwater WMA	U.S. Forest Service Western Wildland Urban Interface Grant	\$ 270,000
Robb-Ledford/Blacktail WMA	National Fish and Wildlife Foundation	\$ 20,000
	Ruby Watershed Conservation District	\$ 20,000
	Rocky Mountain Elk Foundation	\$ 20,000
Nevada Lake WMA	Rocky Mountain Elk Foundation	\$ 10,000
Threemile WMA	Rocky Mountain Elk Foundation	\$ 20,000
TOTAL GRANTS APPLIED FOR CY 2017-2018		\$ 360,000

PARTNERSHIPS AND COLLABORATION

DNRC

Ray Kuhns WMA Seedling Survival Study Memorandum of Agreement (MOA) – In September 2017, FWP and DNRC entered into a MOA to cooperate on a seedling survival study on state trust lands adjacent to the Ray Kuhns WMA. As many as 500 white-tailed deer per square mile may use the area during severe winter months. Due to heavy deer browse, conifer regeneration is not being established on previously harvested state trust lands which could jeopardize the potential future growth and yield from these lands. Likewise, FWP is interested in using timber harvest to enhance white-tailed deer habitat. It is of mutual interest to determine optimal seedling establishment methods for the area. FWP and DNRC are splitting the costs of the study, which are primarily fencing, browse deterrent materials, the purchase of seedlings, and labor.

U.S. Forest Service Cooperative Agreements

Sun River WMA Habitat Project – FWP has partnered with the U.S. Forest Service to implement conifer removal treatments on elk winter range. FWP is compensating the U.S. Forest Service for labor, supplies, and materials through a combination of grant funding and the FWP Forest Management Account.

Blackfoot-Swan Landscape Scale Restoration Plan (BSLRP) – FWP partnered with the U.S. Forest Service on the BSLRP in the Blackfoot-Swan landscape. The planning area overlaps all or portions of the North Swan WMA, Marshall Creek WMA, and Blackfoot-Clearwater WMA. FWP provided \$2,421 to the U.S. Forest Service for aerial photo interpretation and, in-turn, received data that will help FWP assess forest conditions and plan projects on the FWP lands in this area.

Threemile WMA Forest Restoration Project Phase 2 – FWP is working with the U.S. Forest Service on NFSL parcels in the Bitterroot National Forest that are landlocked or immediately adjacent to the Threemile WMA. FWP is planning to work with DNRC to establish a Good Neighbor Authority agreement with the U.S. Forest Service. This would allow DNRC to assist the U.S. Forest Service in the implementation of the project in order to create a seamless, cross-boundary project that would better meet the objectives of the FWP project. If an agreement is executed, DNRC would assist the U.S. Forest Service in developing and administering a project in coordination with FWP on the NFSLs.

The Nature Conservancy

Western Montana Shared Forester – FWP, The Nature Conservancy, Blackfoot Challenge, the Bureau of Land Management, the U.S. Forest Service, and the University of Montana partnered to establish a forester position housed with The Nature Conservancy to assist with forest management in the greater

Blackfoot watershed area. FWP committed funds from its Forest Management Account to support the position for work to be completed on Blackfoot-area WMAs. The shared forester, Michael Schaedel, has assisted in the planning and implementation of the projects on the Blackfoot-Clearwater and Nevada Lake WMAs.

FOREST MANAGEMENT PLANS/INVENTORY DATABASE

Statewide WMA Forest Management Plan

In § 87-1-622(1), MCA, the legislature directed the Fish and Wildlife Commission and State Parks Board to adopt forest management plans for lands under their jurisdiction. FWP developed a statewide programmatic forest management plan to provide consistent management direction and guidance for developing property-specific forest management plans, implementing forest management projects, and identifying forest management priorities. The State Parks Board adopted the plan at its February 2018 meeting and the Fish and Wildlife Commission adopted the plan at its April 2018 meeting.

Bull River WMA Draft Forest Management Plan

The Bull River WMA straddles the boundary of Lincoln and Sanders County and was established in 2005 with the purchase of 1,585 acres to conserve habitat for deer, elk, moose, grizzly and black bears, and other wildlife. Northwest Management, Inc. and Stephens Timber Consulting, with funding from Avista Corporation, completed a draft forest management plan for FWP in April 2018. The plan provides summarized forest attribute data and forest management priorities for the Bull River WMA.

Forest Inventory Database

FWP started working on the development of a forest inventory database in order to track forest stand attributes that are necessary for forest management plans, monitoring, reporting, and reviewing and updating the sustained yield calculation every 5 years which is required by law in § 87-1-622(4), MCA. FWP's forester and Technical Services Section have developed a centralized database system. The system contains five tiers of data. Three of the five tiers were finalized in April 2018 and are in production. The two remaining tiers are still in development and testing. The final database is expected to be completed in 2019.

FWP has been awarded grant funding from Montana NRDP for forest inventory work on the Mt. Haggin and Garrity Mountain WMAs. FWP plans to conduct this forest inventory work in the summer of 2019. FWP intends to use the data to assess forest conditions and identify forest management opportunities on these WMAs.

TECHNICAL ASSISTANCE, COMMUNICATION, AND OUTREACH

In addition to implementing the legislative requirements of the forestry program, FWP's forester provided technical forestry assistance on FWP land interests, participated in educational outreach, and served as the spokesperson for external communication regarding FWP's forestry program.

Technical Assistance

Bolin Ranch Conservation Easement – FWP's forester worked with the landowner and forestry contractor for the Bolin Ranch to ensure forest plans and harvest prescriptions were compliant with conservation easement requirements. FWP's forester reviewed inventory data, forest plans, and visited treatment units with the forestry contractor and landowner to check compliance with the easement requirements.

Timber Volume and Growth – FWP's forester provided timber volume, growth, and/or valuation estimates for land interests in the Dome Mountain Forest Legacy proposal, Keogh Conservation Easement, Spotted Dog DNRC land banking proposal, and Kootenai Forestlands Conservation Easement Forest Legacy proposal.

Region 1 FASs, Parks, and Libby Field Station – In 2018, the FWP forester met with FWP site managers and toured several sites in Region 1 including the Libby Field Station, Thompson Chain of Lakes SP, Wood's Bay FAS, Ferndale/Swan River FAS, and Ferndale/Horseshoe Lake FAS. The FWP forester will continue to work with Fisheries and Parks Division staff to identify, prioritize, fund, and implement forestry treatments.

Communication and Outreach

Montana Natural Resources Youth Camp – The Montana Natural Resources Youth Camp (MNRYC) introduces youth to a variety of natural resources conservation and management disciplines including geology, soils, water, wildlife, range, and forestry. FWP has been involved in MNRYC since its inception. FWP's forester has served on the Board of Directors since 2016 and instructs the forestry course.

Montana Forest Stewardship Foundation – The Montana Stewardship Foundation educates and informs landowners, natural resource professionals, and the general public about the science and ecology of forest lands, the many values derived from forested lands, and the principles of sustainable forest land development. FWP's forester provided an article for their winter 2018 newsletter about the aftermath of the 2017 Caribou Fire on the West Kootenai WMA:
https://docs.wixstatic.com/ugd/b520cb_f15d20c1d42c4e03a3139cfde1caf81b.pdf. FWP's forester also presented at the 9th Annual Montana Forest Landowner Conference hosted by the Montana Forest Stewardship Foundation.

The University of Montana – The FWP forester hosted field trips for students from The University of Montana, W.A. Franke College of Forestry and Conservation (FCFC). The groups included the Forestry Students Association and a forest silviculture class that took field trips to tour forestry projects on the Blackfoot-Clearwater WMA and Threemile WMA, respectively. FWP’s forester also presented as a guest lecturer to the FCFC forest planning class.

Society of American Foresters – FWP’s Forester has been a member of the Society of American Foresters (SAF), a professional forestry association, since 2002. The FWP Forester presented on FWP’s Forestry program at the 2017 SAF National Convention. He also presented at the 2018 Montana SAF Annual Meeting and at an Eastern Montana Chapter Meeting in 2018. FWP’s Forester received SAF’s 2018 Young Forester Leadership Award, in part due to his efforts in leading the development of FWP’s Forestry Program. In 2018, the FWP Forester served as chapter chair of the Eastern Montana Chapter.

Montana Logging Association/Montana Wood Products Association – Timber harvest and timber sales remain a key tool in FWP’s forest management toolbox and revenue generated from timber sales help ensure the fiscal sustainability of FWP’s forestry program. FWP’s Forester continues to maintain communication with accredited logging professionals and forest products manufacturers by providing updates to these organizations at their request.